



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# IQ20-07BNSDPOS

IQV

INDUCTIVE PROXIMITY SENSORS

**SICK**  
Sensor Intelligence.



### Ordering information

Type	Part no.
IQ20-07BNSDP0S	6042044

Other models and accessories → [www.sick.com/IQV](http://www.sick.com/IQV)



### Detailed technical data

#### Features

<b>Housing</b>	Rectangular
<b>Dimensions (W x H x D)</b>	20 mm x 32 mm x 8 mm
<b>Sensing range <math>S_n</math></b>	7 mm
<b>Safe sensing range <math>S_a</math></b>	5.67 mm
<b>Installation type</b>	Flush
<b>Switching frequency</b>	150 Hz
<b>Connection type</b>	Cable with connector M8, 3-pin, 0.3 m
<b>Switching output</b>	NPN
<b>Output function</b>	NO
<b>Electrical wiring</b>	DC 3-wire
<b>Enclosure rating</b>	IP67 <sup>1)</sup>

<sup>1)</sup> According to EN 60529.

#### Mechanics/electronics

<b>Supply voltage</b>	10 V DC ... 30 V DC
<b>Ripple</b>	≤ 10 % <sup>1)</sup>
<b>Voltage drop</b>	< 2.5 V <sup>2)</sup>
<b>Current consumption</b>	15 mA <sup>3)</sup>
<b>Time delay before availability</b>	≤ 20 ms
<b>Hysteresis</b>	1 % ... 15 %
<b>Reproducibility</b>	± 5 % <sup>4) 5)</sup>
<b>Temperature drift (of <math>S_n</math>)</b>	± 10 %
<b>EMC</b>	According to EN 60947-5-2

<sup>1)</sup> Of  $V_S$ .

<sup>2)</sup> At  $I_a$  max.

<sup>3)</sup> Without load.

<sup>4)</sup>  $U_b$  and  $T_a$  constant.

<sup>5)</sup> Of  $S_r$ .

<b>Continuous current I<sub>a</sub></b>	≤ 200 mA
<b>Cable material</b>	PUR
<b>Short-circuit protection</b>	✓
<b>Reverse polarity protection</b>	✓
<b>Shock and vibration resistance</b>	30 g, 11 ms / 10 ... 55 Hz, 1 mm
<b>Ambient operating temperature</b>	-25 °C ... +70 °C
<b>Housing material</b>	Metal, GD Zn
<b>Sensing face material</b>	Plastic, PA12

1) Of V<sub>S</sub>.

2) At I<sub>a</sub> max.

3) Without load.

4) U<sub>b</sub> and T<sub>a</sub> constant.

5) Of S<sub>r</sub>.

### Reduction factors

<b>Note</b>	The values are reference values which may vary
<b>Stainless steel (V2A, 304)</b>	Approx. 0.7
<b>Aluminum (Al)</b>	Approx. 0.4
<b>Copper (Cu)</b>	Approx. 0.3
<b>Brass (Br)</b>	Approx. 0.4

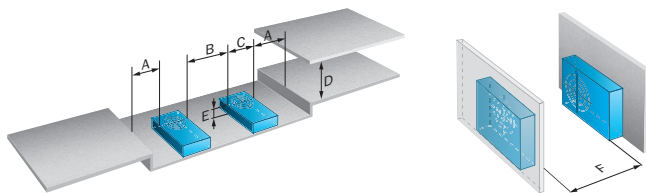
### Installation note

<b>Remark</b>	Associated graphic see "Installation"
<b>A</b>	0 mm
<b>B</b>	20 mm
<b>C</b>	20 mm
<b>D</b>	21 mm
<b>E</b>	0 mm
<b>F</b>	60 mm

### Classifications

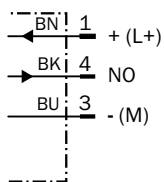
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<b>ECI@ss 5.1.4</b>	27270101
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<b>ECI@ss 6.2</b>	27270101
<b>ECI@ss 7.0</b>	27270101
<b>ECI@ss 8.0</b>	27270101
<b>ECI@ss 8.1</b>	27270101
<b>ECI@ss 9.0</b>	27270101
<b>ETIM 5.0</b>	EC002714
<b>ETIM 6.0</b>	EC002714
<b>UNSPSC 16.0901</b>	39122230

Installation note



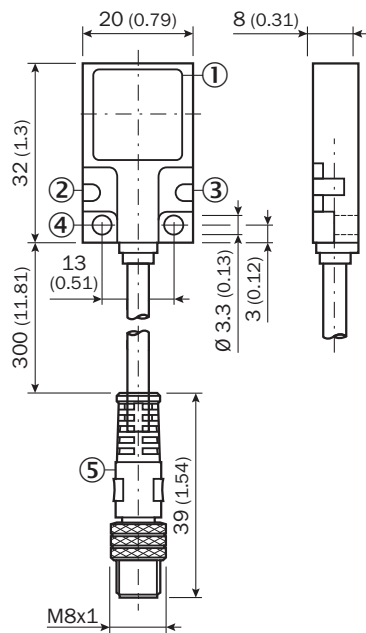
Connection diagram

cd-002



Dimensional drawing (Dimensions in mm (inch))

IQ20, cable with M8 male connector, 3-pin



- ① Sensing face
- ② Operational status LED, green
- ③ LED output state, yellow
- ④ Fixing hole
- ⑤ Connection

## SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

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